

Application Serial No. 10/500,814
Reply to Office Action of September 18, 2008

PATENT
Docket: CU-3809

REMARKS

In the Office Action, dated September 18, 2008, the Examiner states that Claims 1-29 are pending, and Claims 1-29 are rejected. By the present Amendment, Applicant amends the claims.

In the Office Action, Claims 1-5 and 20-29 are rejected under 35 U.S.C. §103(a) as being unpatentable over Fujio et al. (EPO 668,052) in view of Maguire et al. (US 6,599,288). Claims 6-10 are rejected in further view of Matura et al. (US 5,327,890). Claims 11-19 are rejected in still further view of Wilk et al. (US 2005/0020918). The Applicant considers that the amendments to the claims overcome these rejections.

In particular, Claim 1 now requires that the probe is an elongated probe (10) defining a longitudinal direction, that the transmitter is for transmitting the ultrasonic field through the front portion, and that the transmitter is arranged behind the front portion seen in the longitudinal direction support for the above amendments can be found in the application as follows:

- On page 4, line 20, the probe is described as an elongated probe, at in all figures the probe is shown as an elongated probe. Consequently, since the probe is elongated, it necessarily defines a longitudinal direction.
- It is shown in all figures that the transmitter transmits the ultrasonic field through the front portion, see also page 4, lines 15-18 which states that the ultrasound transducer 2 can be placed against the disc and from there transmit the ultrasonic field 3, in combination with page 4, lines 19-21, specifying that it is the front portion of the elongated probe that is to be placed against the disc.
- The feature that the transmitter 11 is placed in a longitudinal direction behind the front portion can be clearly derived from fig. 2.

In Fujio, the transmitters are not placed in a longitudinal direction behind the front Portion (i.e. the portion through which the ultrasonic field is transmitted and which is in contact with the object to be treated). In particular, the treating ultrasonic vibrators 20a and 20b of Fujio emit the ultrasonic field in a radial direction relative to the probe and

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through the window 52, and the vibrators are position behind the window 52 seen in a radial direction (see fig. 3).

The device as claimed in amended Claim 1 thus allows for a larger distance between the transmitter element (11) and the tip (10a) of the probe (10) which is in contact with or at least in proximity of the object to be treated, and thereby preventing an undesirable heating of the tissue immediately surrounding the probe. In the design disclosed in Fujio, a greater distance between the vibrators 20a,b and the portion 52 that is in contact with the organic tissue 53 could only be achieved by increasing the radial dimension of the probe. However, such a thick probe would not be suitable for treatment of objects within a patient's body, in particular not for mini-invasive treatment where a probe is inserted though the skin of a patient, as a thick probe would require a large opening for inserting the probe. Embodiments of the device disclosed in the present application, on the other hand, allow for a compact design of the probe while at the same time allowing a reduction of the heating of the tissue in immediate vicinity of the tip of the probe (see also page 3, lines 9-13 of the PCT application as published).

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

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Date

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